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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

James M. Chwalek, et al

INK-JET PRINTING WITH REDUCED CROSS-TALK

Serial No. US 10/035,902

Filed 26 December 2001

Group Art Unit: 2861

Examiner: Kristal J. Feggins

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, Washington, D.C. 20231.

Jeanette Kramarz

April 16, 2003

Date

Commissioner for Patents
Washington, D.C. 20231

Sir:

REQUEST FOR RECONSIDERATION

This is in response to the Office Action mailed March 28, 2003. Claims 1-8 are pending in the application. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Hawkins et al (US 6,457,807B1). The rejection is traversed, and Applicant respectfully requests reconsideration in view of the remarks hereinbelow.

Hawkins et al. and the present invention relate to "continuous" ink jet printers that can selectively produce large-volume and small-volume droplets. Further, Hawkins et al. and the present invention share a common purpose; the desire to increase printing densities with tightly packed nozzles while avoiding cross-talk. A problem, common to both disclosures is that large-volume droplets must be physically separated one from the other to avoid coalescence. The solutions are quite different.

According to a feature of the present invention, nozzles can be tightly packed by providing a controller adapted to insure that adjacent nozzles never eject large-volume droplets at the same time, thus insuring that large-volume droplets are physically separated one from another. In contrast, Hawkins et al. have solved the problem by physically staggering the nozzles in an in-track

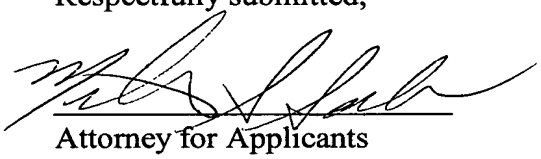
direction. This accomplishes the desire for increased printing densities while also increasing nozzle-to-nozzle spacing to inhibit cross-talk.

Figs. 1a and 1b of Hawkins et al. illustrate the operation of the print head in a manner to produce spots on a receiver W, the spots being aligned in a cross-track direction. Because there is a time lag between when the receiver aligns with the first row of nozzles and with the second row of nozzles, there is a time delay between drop emissions from the second nozzle row. While the drawings show a mode of operation wherein adjacent nozzles are not emitting large droplet at the same time, there is nothing disclosed in Hawkins et al. that would prevent such simultaneous emissions if the image to be printed required it. Contrast the claims of the present application which include a controller that precludes simultaneous emission of large-volume droplets from adjacent nozzles.

Regarding claim 2, the Examiner refers to col. 4 lines 63-65 as disclosing a linear array of nozzles. In fact, that portion Hawkins et al. discloses "a two-dimensional nozzle array." A linear array of nozzles is a series of nozzles in a line. A line is a one-dimensional object. Hawkins et al. would not work for its intended purpose if its nozzles were arranged in a linear array.

It is respectfully submitted that this application is in condition for allowance, prompt notice of which is earnestly solicited.

Respectfully submitted,



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